

## The RF Line

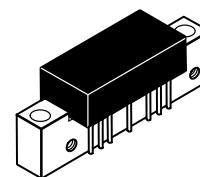
# Low Distortion Wideband Reverse Amplifier Modules

Designed specifically for broadband applications requiring low distortion characteristics. Specified for use as return amplifiers for low-split 2-way cable TV systems. Features all gold metallization system.

- Guaranteed Broadband Power Gain
- Guaranteed Broadband Noise Figure
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- Circuit Design Optimized for Good RF Stability Under High VSWR Load Conditions
- Transformers Designed to Insure Good Low Frequency Gain Stability versus Temperature

# MHW1304L

24 Vdc  
50 MHz  
30 dB  
**CATV LOW CURRENT AMPLIFIER**



CASE 714-06, STYLE 1

### MAXIMUM RATINGS

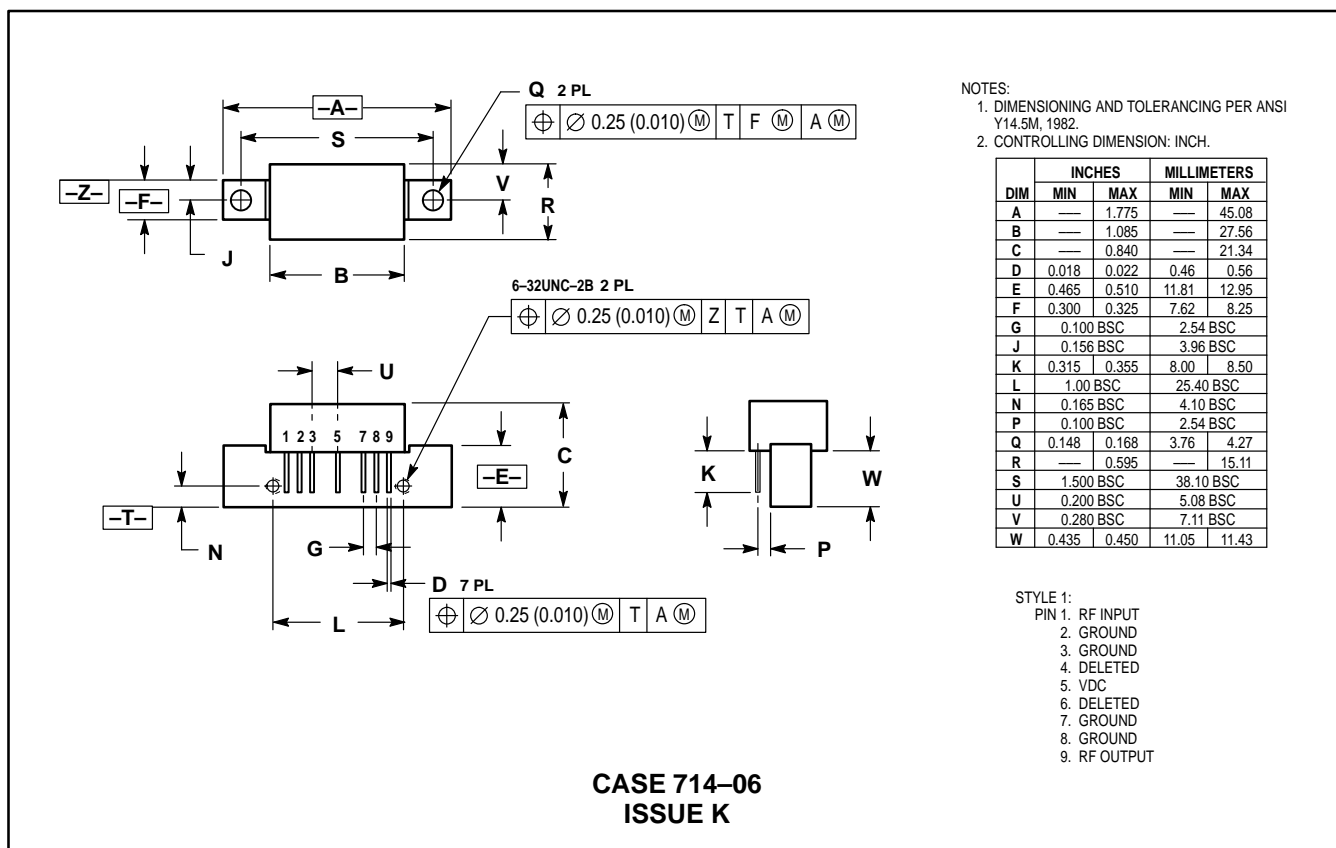
Parameter	Symbol	Value	Unit
DC Supply Voltage	$V_{CC}$	+28	Vdc
RF Input Voltage (Single Tone)	$V_{IN}$	+70	dBmV
Operating Case Temperature Range	$T_C$	- 20 to +100	°C
Storage Temperature Range	$T_{stg}$	- 40 to +100	°C

### ELECTRICAL CHARACTERISTICS ( $V_{CC} = 24$ Vdc, $T_C = 30^\circ\text{C}$ , 75 ohm system, unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Bandwidth All	BW	5.0	50	MHz
Power Gain (f = 5.0 MHz)	Gp	29.2	30.8	dB
Return Loss (@ f = 5.0-50 MHz)	RL	18	—	dB
Second Order Distortion ( $V_{out} = +50$ dBmV/ch)	IMD	—	-70	dBc
Cross Modulation ( $V_{out} = +50$ dBmV/ch)	XMD <sub>4</sub>	—	-57	dBc
Triple Beat Distortion ( $V_{out} = +50$ dBmV/ch)	TB <sub>3</sub>	—	-66	dBc
Noise Figure (f = 50 MHz)	NF	—	4.5	dB
DC Current	$I_{DC}$	100	135	mA

(Replaces MHW1184L/D)

## PACKAGE DIMENSIONS



- NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.  
 2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	—	1.775	—	45.08
B	—	1.085	—	27.56
C	—	0.840	—	21.34
D	0.018	0.022	0.46	0.56
E	0.465	0.510	11.81	12.95
F	0.300	0.325	7.62	8.25
G	0.100 BSC	2.54 BSC		
J	0.156 BSC	3.96 BSC		
K	0.315	0.355	8.00	8.50
L	1.00 BSC	25.40 BSC		
N	0.165 BSC	4.10 BSC		
P	0.100 BSC	2.54 BSC		
Q	0.148	0.168	3.76	4.27
R	—	0.595	—	15.11
S	1.500 BSC	38.10 BSC		
U	0.200 BSC	5.08 BSC		
V	0.280 BSC	7.11 BSC		
W	0.435	0.450	11.05	11.43

- STYLE 1:  
 PIN 1. RF INPUT  
 2. GROUND  
 3. GROUND  
 4. DELETED  
 5. VDC  
 6. DELETED  
 7. GROUND  
 8. GROUND  
 9. RF OUTPUT

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